

**IN THE TENNESSEE PUBLIC UTILITY COMMISSION
AT NASHVILLE, TENNESSEE**

IN RE:)	
)	
PETITION OF TENNESSEE)	
WASTEWATER SYSTEMS INC. FOR)	DOCKET NO. 16-00096
APPROVAL OF CAPITAL)	
IMPROVEMENT SURCHARGES AND)	
FINANCING ARRANGEMENTS)	

STIPULATION AND SETTLEMENT AGREEMENT

Tennessee Wastewater Systems, Inc. (the Utility), and Herbert H. Slatery III, the Tennessee Attorney General and Reporter, through the Consumer Protection and Advocate Division (Consumer Advocate) (individually a Party and collectively the Parties) constituting all of the Parties to the above-captioned proceeding and, in comprehensive settlement of the matters regarding Maple Green, Cedar Hill, and Smoky Village at issue in TPUC Docket No. 16-00096, subject to Section 24 of this Stipulation and Settlement Agreement (Settlement Agreement) subject to the Tennessee Public Utility Commission (TPUC), do hereby stipulate and agree as follows:

BACKGROUND

1. The Utility provides wastewater services to approximately 2,800 customers across Tennessee. The Utility's principal office and place of business is located at 851 Aviation Parkway, Smyrna, Tennessee 37167.

2. The Utility is a public utility in Tennessee and is subject to TPUC regulation and supervision pursuant to Chapter 4 of Title 65 of the Tennessee Code Annotated.

3. On November 18, 2014, the Utility filed its *Petition of Tennessee Wastewater Systems, Inc. for Approval of Capital Improvement Surcharges and Financing Arrangements* (2014 *Petition*). The 2014 *Petition* requested approval of financing arrangements to pay for capital improvements at four of the Utility's treatment facilities: Maple Green, Cedar Hill, Smoky Village, and Summit View Resort. At Maple Green, Cedar Hill, and Smoky Village, the Tennessee Department of Environment and Conservation (TDEC) ordered permanent environmental repairs, and the Utility requested to assess all of its customers for the costs of these repairs. This 2014 *Petition* was assigned TPUC Docket No. 14-00136.

4. On December 8, 2014, the Consumer Advocate filed a *Petition to Intervene* in TPUC Docket No. 14-00136. The Consumer Advocate's *Petition to Intervene* was granted on January 28, 2015.

5. On June 2, 2015, Summit View filed a *Petition to Intervene* in TPUC Docket No. 14-00136. Summit View's *Petition to Intervene* was granted on June 30, 2015.

6. Subsequent to the filing of the 2014 *Petition*, the Parties to this Proceeding have engaged in substantial discovery, informal information exchanges, and extensive communication. The Parties filed testimony from Utility executives, engineering experts, accounting experts, and TDEC employees. Upon the initial review of this testimony, it remained unclear whether the Utility had received TDEC approval for its engineering plans at the four properties at issue.

7. On September 2, 2015, a pre-hearing conference on TPUC Docket No. 14-00136 occurred. During that conference, the Hearing Officer determined that no hearing would be set regarding any of the four properties involved until TDEC confirmed that the engineering plans at

those properties were approved. Following that pre-hearing conference, representatives from the Utility and TDEC have collaborated to generate approved engineering plans at Maple Green, Cedar Hill, and Smoky Village. Copies of the TDEC letters approving Maple Green, Cedar Hill and Smoky Village are attached as **Exhibit A**. Engineering plans for Maple Green were approved on March 15, 2017. Engineering plans for Cedar Hill were approved on March 24, 2017. Engineering plans for Smoky Village were approved on December 2, 2013. The Utility represents and warrants it has not been requested to make any changes to these approved plans and does not anticipate any changes.

8. Representatives from the Utility and the Consumer Advocate have spent a significant amount of time in settlement discussions of all issues in Maple Green, Cedar Hill, and Smoky Village. At this time, it is unlikely that a settlement will be reached regarding the Summit View property. However, the Utility cannot begin repair work at Maple Green, Cedar Hill, or Smoky Village until TPUC approves its proposed repairs and/or any settlements agreed to by the Utility and the Consumer Advocate. Therefore, on July 13, 2016, the Consumer Advocate and the Utility filed their *Joint Motion to Open a New Docket Regarding Maple Green, Cedar Hill, and Smoky Village (Joint Motion)*. Summit View HOA, who is represented by counsel, did not oppose the *Joint Motion*. On August 17, 2016, the Commission issued an *Order Approving Joint Motion to Open a New Docket Regarding Maple Green, Cedar Hill, and Smoky Village (Order)*. Pursuant to this *Order*, TPUC opened Docket No. 16-00096.

SETTLEMENT

9. Following the review by each Party of the testimony and discovery filed by the other Party, and following confirmation from TDEC that the engineering plans for Maple Green,

Cedar Hill, and Smoky Village were approved, representatives of the Utility and the Consumer Advocate discussed the possibility of a settlement in this Proceeding regarding the issues related to Maple Green, Cedar Hill, and Smoky Village.

10. Representatives from the Utility and the Consumer Advocate have spent a significant amount of time discussing possible financing arrangements necessary to implement the engineering plans at Maple Green, Cedar Hill, and Smoky Village. The Parties reached an agreement about financing arrangements that is different from the Utility's normal financing model. Therefore, the Parties acknowledge that given the novelty of these financing arrangements for the Utility—as well as the importance of quickly and competently making necessary environmental repairs—that the financing process should be transparent and regularly monitored.

11. This Settlement Agreement does not intend to resolve, nor does it resolve, the issues presented in TPUC Docket No. 14-00136 regarding capital improvements at Summit View.

12. Based on the settlement discussions described above, and in order to resolve the issues related to Maple Green, Cedar Hill, and Smoky Village through settlement, and to avoid the need for further litigation and expenses for all Parties related to these properties, and without waiving any positions asserted in TPUC Docket No. 16-00096, the Utility and the Consumer Advocate have made agreements on certain requests for relief made in the Utility's *Petition*, which are set out in this Settlement Agreement. The Parties have agreed that all of the Utility's requests for relief regarding Maple Green, Cedar Hill, and Smoky Village properties in the Utility's *Petition* that are not specifically included and set out in this Settlement Agreement, shall be deemed withdrawn by the Utility. The Consumer Advocate and the Utility have further agreed that the Settlement Agreement made to settle the issues involving Maple Green, Cedar Hill, and Smoky

Village in TPUC Docket No. 16-00096 are not intended in any way to settle or resolve any issue in any other TPUC docket, such as but not limited to TPUC Docket No. 14-00136.

13. Rates. For the limited purpose of this Settlement Agreement, the Utility and the Consumer Advocate agree that the rates set out in the Utility's current tariff on file with TPUC (Tariff), resulting from TPUC Docket No. 08-00202, form the basis to resolve this Proceeding and shall not be amended or modified by the proceedings in TPUC Docket No. 16-00096.

14. Open Bidding. The Utility agreed to solicit competitive bids for the construction at Maple Green, Cedar Hill, and Smoky Village. The bidding window was open from February 9, 2016, until February 26, 2016. The Utility received three bids, and the lowest bidder was Adenus Solutions Group, with a bid of \$843,759.92.¹ A copy of the costs for the repairs at the three systems are attached as **Exhibit B**.²

15. Rate Case Expense Reimbursement. The Utility and the Consumer Advocate agree that due to the extraordinary nature of these proceedings, including but not limited to the necessity of developing plans approved by TDEC for areas involving sinkholes, the Utility may recover reasonable rate case expenses, including its reasonable attorneys' fees connected to the proceedings in TPUC No. Docket 16-00096. After significant discussion and negotiation, the Utility represents and warrants \$78,750.00 is a reasonable and appropriate fee for the legal services it received.³ Based on this representation, the Consumer Advocate will not object to the recovery

¹ After the settlement discussions were very advanced between the Parties, the Utility decided to implement the more familiar technology of recirculating sand filters rather than the experimental constructed wetland technology at two of the systems—Maple Green and Cedar Hill. Although the recirculating sand filter technology is more expensive by \$1.6-1.8 million, as part of the settlement, the Utility has agreed to absorb the additional cost without imposing it onto its customers. Accordingly, the Utility is limiting its recovery to the Environmental Tariff Rider in Section 16 which is based on the budgets set out in Exhibit B.

² The cost sheet for Smoky Village is \$159,294.60. However, the cost sheet does not include the property acquisition expense of \$42,000 plus 8% annual interest. The total cost of repairs for Smoky Village is \$201,294.46. Adding \$201,294.46 (Smoky Village) to \$364,462.66 (Maple Green) and to \$278,002.66 results in the amount of \$843,759.92.

³ The Utility agrees it will make the attorney's fee bills available to the TPUC and its staff for review to confirm this number should it so desire to review the bills.

of \$78,750.00 in legal fees amortized over five years, and this amount shall represent the full and complete satisfaction of all the Utility's claims for rate case expenses related to Maple Green, Cedar Hill, and Smoky Village, including but not limited to attorneys' fees related to the proceedings in this portion of the Docket. The Utility's Tariff shall be amended to include a temporary additional charge of \$0.45 per month for each customer of the Utility entitled Legal Expense Rider for the sole purpose of reimbursement of the legal expenses related to TPUC Docket 16-00096 to the Utility and, further, such Legal Expense Rider shall terminate:

- A. automatically and without further action by the TPUC after the 60th month in which the Legal Expense Rider has been collected;
- B. automatically and without further action by the TPUC upon the collection of \$78,750 through the Legal Expense Rider; or
- C. upon the issuance of a termination order by the TPUC (in which case the Legal Expense Rider shall terminate as set forth in such order).

For the avoidance of doubt, the Legal Expense Rider shall terminate upon the earliest to occur of the foregoing.

16. Environmental Repairs Tariff Rider. The Utility and the Consumer Advocate agree that, because of the Utility's particular business model (which is based on developer contributions of capital) and the priority of making environmental repairs, the Utility's Tariff shall be amended to include an additional charge of \$3.76 per month for each customer of the Utility for a period limited to no more than 120 months (Environmental Tariff Rider) for the sole purpose of establishing an environmental repairs account; provided, however, that:

- A. The Environmental Tariff Rider shall automatically and without further action by TPUC terminate immediately after the 120th month of collection of the Environmental Tariff Rider; and
- B. Notwithstanding the forgoing, upon the occurrence of any of the following:
 - (i) the collection of \$1,301,726.58 through the Environmental Tariff Rider,
 - (ii) the completion of the construction projects at Maple Green, Cedar Hill, and Smoky Village and the collection of sufficient funds to pay for those construction projects not to exceed the costs set forth in Exhibit B, or
 - (iii) a termination order by TPUC for any other reason, the Environmental Tariff Rider shall automatically and without further action by TPUC terminate earlier than the 120th month set forth above.

For the avoidance of doubt, the Environmental Tariff Rider shall terminate upon the earliest to occur of the foregoing.

17. Separate Environmental Tariff Rider Account. The funds collected under the Environmental Tariff Rider shall be held in a separate FDIC-insured, state-authorized, interest-bearing bank account from which funds shall not be expended without the Utility first producing legitimate and verifiable invoices for specific goods and services it seeks recovery from the account. All interest generated shall be applied to ratepayer obligations for the costs of repairs set forth in Exhibit B. Such invoices shall be exclusively related to the environmental repairs at Maple Green, Cedar Hill, and Smoky Village properties and included in the respective budgets established by the bids for the three sites (**Exhibit B**). This bank account will be established at the same lending institution that has approved a line of credit for the Utility to execute the environmental repairs at Maple Green, Cedar Hill, and Smoky Village properties. A single invoice

may include expenditures related to any or all of the three properties. To maintain transparent accounting and to ensure that funds in the Environmental Tariff Rider Account are only expended in accordance with the budgets for each property, each invoice must be itemized and explicitly indicate which expenditures are attributable to which of the three properties. The Consumer Advocate and TPUC shall receive copies of each monthly statement within 10 business days of issuance.

18. Environmental Tariff Rider Account Reporting. The Utility will maintain four separate ledgers: a master ledger to track deposits and expenditures from the Environmental Tariff Rider Account and separate ledgers for each of Maple Green, Cedar Hill, and Smoky Village properties that record project expenditures against each respective project budget. These ledgers will be promptly updated as deposits and/or expenditures occur and maintained in accordance with generally accepted utility accounting principles. The Utility will make all of the aforementioned ledgers available to TPUC and the Consumer Advocate in Excel format with working formulas along with any back up documentation (upon request). By the fifth day of every month, beginning with the month immediately following the month in which this Settlement Agreement is approved by TPUC, the Utility will file the aforementioned ledgers in TPUC Docket No. 16-00096 and provide copies of the same to TPUC and the Consumer Advocate in Excel format with working formulas. The Utility will continue to make and provide these reports until all of the following have been completed:

- A. the construction projects at Maple Green, Cedar Hill, and Smoky Village properties are complete,
- B. the 120-month collection period for the Environmental Tariff Rider is complete,
- and

C. any surplus refunded to customers who paid the Environmental Tariff Rider pursuant to Section 19, below, is complete.⁴

19. Environmental Tariff Rider Account Surplus. Upon completion of the construction projects at Maple Green, Cedar Hill, and Smoky Village, any remaining balance in the Environmental Tariff Rider Account, including any interest earned on the Tariff Rider Account, shall be refunded to customers across all of the Utility's customer base who paid the Environmental Tariff Rider according to the following provisions:

- A. If there is a positive balance in the Environmental Tariff Rider Account upon the completion of the construction projects at Maple Green, Cedar Hill, and Smoky Village, and upon the Utility paying all invoices related to these projects, then the Environmental Tariff Rider shall automatically terminate and the entirety of the positive balance shall be refunded to customers who paid the Environmental Tariff Rider in the next regular billing cycle. The Consumer Advocate and TPUC shall receive proof of the refunds being processed including those provided to the Tennessee unclaimed property account within 10 business days of completion of the refund process.
- B. If, upon the completion of the construction projects at Maple Green, Cedar Hill, and Smoky Village, the necessary funds to pay all invoices have not yet been collected by the Environmental Tariff Rider, then the Environmental Tariff Rider shall automatically terminate upon the collection of the remaining funds necessary to pay all invoices related to these projects. Any surplus remaining in the Environmental Tariff Rider Account upon the payment of all outstanding

⁴ If a ratepayer cannot be located, said refund funds will be provided to the Tennessee unclaimed property account so those ratepayers have the opportunity to come forward and claim their refund.

invoices related to these projects shall be refunded to customers who paid the Environmental Tariff Rider in the next regular billing cycle. The Consumer Advocate and TPUC shall receive proof of the refunds being processed including those provided to the Tennessee unclaimed property account within 10 business days of completion of the refund process.

C. The provisions of this section are consistent with and subject to the termination provisions set out in Section 16(A)-(B), above.

20. Overspending Protection. The Utility represents and warrants that the spending budgets for the construction projects at Maple Green, Cedar Hill, and Smoky Village, totaling \$843,759.92, are consistent with the winning bid for the projects and represent a good faith competitive estimate of the actual costs of construction. The Utility does not expect that the costs of the construction projects at Maple Green, Cedar Hill, and Smoky Village will exceed these costs, and under this Settlement Agreement the Utility may not collect more than \$1,301,726.56 from customers for the purpose of financing these projects. Based on these representations, the Consumer Advocate will not object to this spending budget. In a good faith effort to control costs and prevent overspending, the Parties agree to the following overspending protections:

A. The Utility must notify TPUC and the Consumer Advocate within three business days of when it spends 80% of the total amount budgeted for any of the construction projects at Maple Green, Cedar Hill, or Smoky Village. This notification requirement is triggered when the Utility spends \$291,570.13 on the Maple Green project, \$222,402.13 on the Cedar Hill project, or \$161,035.68 on the Smoky Village project. The Utility must provide notice upon reaching each spending trigger.

- B. Upon reaching a spending trigger set forth in subpart 20(A) above, the Utility shall make a notice filing in this TPUC Docket No. 16-00096, with service to the Consumer Advocate, that includes the following:
- i. A statement that a spending trigger has been reached and identification of the project(s) for which the trigger was reached;
 - ii. The four ledgers as described in Section 18, above, updated to the date of the notice filing;
 - iii. An explanation of the remaining work to be accomplished at each of the project(s) for which the trigger was reached and the estimated cost of completion;
 - iv. Identification and explanation of any overspending on line items in the budgets of the project(s) for which the trigger was reached and the reasons for overspending and the steps taken to prevent overspending; and
 - v. A statement explaining whether the Utility will seek approval from TPUC for additional financing related to the construction projects at Maple Green, Cedar Hill, and Smoky Village, and whether the Utility will seek to recover additional funds from consumers related to these projects.
- C. The Parties agree that any request for approval of additional financing and/or the recovery of additional funds from consumers relating to the construction projects at Maple Green, Cedar Hill, and Smoky Village shall be filed in this Docket No. 16-00096 and subject to separate review and approval, if appropriate by TPUC. For clarity this means, this Settlement Agreement does

not cover any additional funding which may be sought by the Utility over \$843,759.92 towards these construction projects.

- D. The Utility acknowledges that it is not *per se* entitled to approval of additional financing and/or the recovery of additional funds from consumers relating to the construction projects at Maple Green, Cedar Hill, and Smoky Village without TPUC review and approval. The Utility acknowledges that the Consumer Advocate reserves all rights to oppose any request for approval of additional financing and/or the recovery of additional funds from consumers relating to the construction projects at Maple Green, Cedar Hill, and Smoky Village. Consumer Advocate and TPUC shall also have the right to receive discovery relating to any additional recovery sought from the Utility prior to the TPUC's consideration. The Utility acknowledges it is subject to the jurisdiction of the TDEC and is required by state law to comply with final orders of the TDEC, including orders to make capital improvements at these three sites, irrespective of the Utility's financial condition. The Utility also acknowledges that the Utility is subject to the jurisdiction of TPUC and is required by state law to comply with final orders of TPUC, including orders regarding the borrowing and spending money for capital improvements and approving Settlement Agreements.
- E. The Utility acknowledges that nothing in the Settlement Agreement addresses or resolves matters involving the Utility before any other tribunal or state agency, including but not limited to TDEC.

21. The Utility and the Consumer Advocate further stipulate and agree:

- A. Effective Date. The Environmental Tariff Rider and Legal Expense Riders proposed in this Settlement Agreement shall be effective at the start of the next ratepayer billing cycle after the date this Settlement Agreement is approved by TPUC.
- B. Disclosure. The Utility will clearly and conspicuously state on each bill sent to its customers:
- i. the Environmental Rider for environmental repairs as a separate line item entitled “Environmental Repair Tariff – 120 months, to expire on [date]” and
 - ii. the Legal Expense Rider for recovery of rate case expenses as a separate line item entitled “Legal Expense Tariff – 60 months, to expire [date]”.
- C. Rate Design. For the limited purpose of this Settlement Agreement, the rate design described in connection with the addition of these two tariff riders on an across the board per customer basis as set forth herein is just and reasonable and appropriate for use in this Proceeding only.
- D. Engineering Plans. The Utility represents and warrants it will adhere to the construction and engineering plans approved by TDEC for Maple Green, Cedar Hill, and Smoky Village. To the extent TDEC reserves the right to monitor compliance with these approved plans, the Utility shall not oppose or impede such monitoring. If at any point TDEC determines that the Utility is not in compliance with the approved construction and engineering plans at Maple Green, Cedar Hill, or Smoky Village, then the Utility will immediately notify

TPUC and the Consumer Advocate by a filing in this Docket No. 16-00096.

The Utility acknowledges the TPUC could issue an order terminating the riders if this occurs.

E. Compliance/Enforcement. The Consumer Advocate reserves the right to challenge at the TPUC or otherwise, and the Utility agrees not to oppose such right of the Consumer Advocate and the TPUC (upon approval of the Settlement Agreement), the compliance with and enforcement of any term of this Settlement Agreement entered into by the Utility.

22. No Precedent Established. The Parties agree to support this Settlement Agreement before TPUC and in any hearing, proposed order, or brief conducted or filed in this Proceeding; provided, however, that the settlement of any issue provided for herein shall not be cited as precedent by any of the Parties hereto in any unrelated or separate proceeding or docket before TPUC. The resolution of issues reflected herein is the result of give and take negotiations between the Parties and does not necessarily reflect the position of any single Party on any discrete issue. None of the Parties hereto shall be deemed to have acquiesced in any ratemaking or procedural principle, including without limitation, any cost of service determination or cost allocation or revenue-related methodology and neither Party waives its right to take positions with respect to the matters settled herein in future proceedings before TPUC. This Settlement Agreement shall not have any precedential effect in any future proceeding or bind any of the settling Parties in this or any other jurisdiction except to the limited extent necessary to implement the provisions hereof.

23. Admission of Evidence. If the Settlement Agreement is approved, the Parties agree that all pre-filed testimony, discovery responses and exhibits of the Parties (including pre-filed supplemental testimony and exhibits supporting this Settlement Agreement) will be admitted into

evidence without objection, and the Parties hereby waive their right to cross-examine all witnesses with respect to such pre-filed testimony and exhibits; provided, however, that should questions be asked of such witnesses by any person at the hearing of this matter (including any questions by the Commissioners or TPUC staff), the Parties may cross-examine any witness with respect to such questions consistent with the agreements set forth in this Settlement Agreement.

24. Agreements Just and Reasonable; Recommendation. The stipulations and agreements in this Settlement Agreement, which are the product of negotiations and substantial communication and compromise between the Parties, are just and reasonable and in the public interest. The Parties jointly recommend that TPUC issue an order adopting this Settlement Agreement in its entirety without modification.

25. TPUC Approval Requirement. Notwithstanding any other term or condition of this Settlement Agreement, the Parties acknowledge and agree that this Settlement Agreement is subject to approval by TPUC and that:

- A. If TPUC does not approve this Settlement Agreement as a whole and as final settlement of the issues regarding Maple Green, Cedar Hill, and Smoky Village in this TPUC Docket No. 16-00096, this Settlement Agreement shall immediately terminate, and
- B. If TPUC approves but (i) modifies all or any portion of this Settlement Agreement or (ii) imposes additional conditions and requirements upon either Party in connection with accepting this Settlement Agreement, then each Party shall have the right within 15 business days (unless extended further by agreement of the Parties) of any such action described in (i) or (ii) in this Section

by TPUC to file a notice of termination of the Settlement Agreement and, upon the filing of such notice, this Settlement Agreement will immediately terminate; Provided, however, that Sections 20(D)-(E), 22, 25, 26 and 27 of this Settlement Agreement shall survive any termination of this Settlement Agreement and for the avoidance of doubt, the Parties acknowledge. For the avoidance of doubt, the Parties acknowledge and agree that if neither Party exercises its right to terminate based on TPUC actions as described in 25(A) or (B), this Settlement Agreement shall be deemed modified to the limited extent in accordance with TPUC's actions.

26. Termination of Agreement. Should this Settlement Agreement terminate:

- A. The signatories to this Settlement Agreement reserve their rights to fully participate in all relevant proceedings notwithstanding their agreement to the terms of this Settlement Agreement.
- B. The terms of this Settlement Agreement shall not be admitted into evidence, or referred to, or relied upon in any manner by any Party or the TPUC.

27. General Provisions

- A. No provision of this Settlement Agreement shall be deemed an admission of any Party. No provision of this Settlement Agreement shall be deemed a waiver of any position asserted by a Party in this Docket or any other docket.
- B. The provisions of this Settlement Agreement do not necessarily reflect the positions asserted by any Party, and no Party to this Settlement Agreement waives the right to assert any position in any future proceeding except as expressly stipulated herein.
- C. No Waiver. Approval by TPUC of the provisions of this Settlement Agreement shall not be construed as a waiver of prior TPUC rate case and policy decisions.

- D. The acceptance of this Settlement Agreement by the Attorney General shall not be deemed approval by the Attorney General of any of the Utility's practices. Further, neither the Utility nor anyone acting on its behalf shall state or imply or cause to be stated or implied that the State of Tennessee, the Attorney General, or any other governmental unit of the State of Tennessee has approved, sanctioned, or authorized any practice, act, or conduct of the Utility.
- E. This Settlement Agreement may only be enforced by the Parties or TPUC, if it is approved.
- F. By agreeing to this Settlement Agreement, the Utility reaffirms and attests to the truthfulness, accuracy, and completeness of all of the information provided by the Utility to the Consumer Advocate prior to entry of this Settlement Agreement. The Consumer Advocate's agreement to this Settlement Agreement is expressly premised upon the truthfulness, accuracy, and completeness of the information provided by the Utility to the Consumer Advocate throughout the course of this TPUC Docket No. 16-00096, which information was relied upon by the Consumer Advocate in negotiating and agreeing to the terms and conditions of this Settlement Agreement.
- G. Strict Performance. Any failure by any Party to this Settlement Agreement to insist upon the strict performance by any other Party of any of the provisions of this Settlement Agreement shall not be deemed a waiver of any of the provisions of this Settlement Agreement, and such Party, notwithstanding such failure, shall have the right thereafter to insist upon the strict performance of any and

all of the provisions of this Settlement Agreement and the imposition of any applicable remedies and penalties.

- H. Conflicts of Law. This Settlement Agreement shall be governed by and construed under the laws of the State of Tennessee, notwithstanding conflict of law provisions.
- I. Severability. The provisions of this Settlement Agreement are not severable.
- J. Headings. The section and subsection headings contained in this Settlement Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Settlement Agreement.
- K. Complete Agreement. The Parties agree that this Settlement Agreement constitutes the complete understanding among the Parties concerning the resolution of issues and matters regarding Maple Green, Cedar Hill, and Smoky Village under this TPUC Docket No. 16-0096, and any and all oral statements, representations or agreements concerning such issues and matters made prior to the execution of this Settlement Agreement shall be null and void and shall be deemed to have been merged into this Settlement Agreement.
- L. Informed Signatories. Each signatory to this Settlement Agreement represents and warrants that it/he/she has informed, advised and otherwise consulted with the Party for whom it/he/she signs regarding the contents and significance of this Settlement Agreement and has obtained authority to sign on behalf of such Party, and, based upon those communications, each signatory represents and warrants that it/he/she is authorized to execute this Settlement Agreement on behalf of its/his/her respective Party.

M. Grants. The Utility agrees to apply in good faith for any grants or other governmental funding should it become available to cover costs associated with these projects and to reduce the amount to be recovered from ratepayers by the amount of any such grants or funding received.

N. Counterparts. The Parties agree that this Settlement Agreement may be executed in multiple counterparts and by copies provided by facsimile or in .pdf format.

The foregoing is agreed and stipulated to this 25th day of July, 2017.

[signature page follows – remainder of page intentionally left blank]

Stipulation and settlement Agreement
Tennessee Public Utility Commission Docket No. 16-00096
Signature Page

TENNESSEE WASTERWATER SYSTEMS, INC.

HAVE SEEN AND AGREED.

By:

Charles Hyatt by permission
Charles Hyatt, President
Tennessee Wastewater Systems, Inc.
851 Aviation Parkway
Smyrna, TN 37167

Jeff Riden by permission
Jeff Riden, Esq. (BPR #032769)
General Counsel
Tennessee Wastewater Systems, Inc.
851 Aviation Parkway
Smyrna, TN 37167
615-220-7171
615-346-9516 (fax)
Jeff.riden@adenus.com

[additional signature page follows – remainder of page intentionally left blank]

Stipulation and settlement Agreement
Tennessee Public Utility Commission Docket No. 16-00096
Signature Page

CONSUMER PROTECTION AND ADVOCATE DIVISION

HAVE SEEN AND AGREED.

By:



HERBERT H. SLATTERY III (BPR #09077)
Attorney General and Reporter
State of Tennessee



KAREN H. STACHOWSKI (BPR #019607)
Assistant Attorney General
Office of the Attorney General
Public Protection Section
Consumer Protection and Advocate Division
P.O. Box 20207
Nashville, Tennessee 37202-0207
Phone: (615) 741-2370
Fax: (615) 532-2910
Email: Karen.Stachowski@ag.tn.gov



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

October 15, 2013

Mr. Charles R. Hyatt, CEO
Adenus Group, LLC
e-copy: Charles.Hyatt@adenus.com
849 Aviation Parkway
Smyrna, TN 37167

Re: State Operating Permit No. SOP-05033
TN Wastewater Systems - Smoky Village Subdivision
Kodak, Sevier County, Tennessee

Dear Mr. Hyatt:

In accordance with the provisions of the Tennessee Water Quality Control Act, Tennessee Code Annotated (T.C.A.), Sections 69-3-101 through 69-3-120, the Division of Water Resources hereby issues the enclosed State Operating Permit. The continuance and/or reissuance of this Permit is contingent upon your meeting the conditions and requirements as stated therein.

Please be advised that a petition for permit appeal may be filed, pursuant to T.C.A. Section 69-3-105, subsection (i), by the permit applicant or by any aggrieved person who participated in the public comment period or gave testimony at a formal public hearing whose appeal is based upon any of the issues that were provided to the commissioner in writing during the public comment period or in testimony at a formal public hearing on the permit application. Additionally, for those permits for which the department gives public notice of a draft permit, any permit applicant or aggrieved person may base a permit appeal on any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment. Any petition for permit appeal under this subsection (i) shall be filed with the technical secretary of the Water Resources Board within thirty (30) days after public notice of the commissioner's decision to issue or deny the permit. A copy of the filing should also be sent to TDEC's Office of General Counsel.

If you have questions, please contact the Knoxville Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Mr. Hari Akunuri at (615) 532-0650 or by E-mail at Hari.Akunuri@tn.gov.

Sincerely,

Brad Harris
Manager, Land-based Systems

Enclosure

cc/ec: Land-based Systems File
Knoxville Environmental Field Office
Ms. Michelle Ramsey, Utilities Division, Tennessee Regulatory Authority, michelle.ramsey@tn.gov

EXHIBIT A

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

Modification

Permit No. SOP-05033

PERMIT
For the operation of Wastewater Treatment Facilities

In accordance with the provision of Tennessee Code Annotated section 69-3-108 and Regulations promulgated pursuant thereto:

PERMISSION IS HEREBY GRANTED TO

TN Wastewater Systems, Inc. - Smoky Village Subdivision
Kodak, Sevier County, Tennessee

FOR THE OPERATION OF

STEP/STEG collection system discharging to recirculating packed bed filter, thence to UV disinfection and original drip irrigation system located at latitude 35.99883 and longitude -83.635416 and proposed drip irrigation system at latitude 35.99958 and longitude -83.634167 in Sevier County, Tennessee to serve approximately 28 homes in the Smoky Village Subdivision. The design capacity of the system is .0056 MGD.

This permit is issued as a result of the application filed on April 29, 2013, in the office of the Tennessee Division of Water Resources and in conformity with approved plans, specifications and other data submitted to the Department in support of the above application, all of which are filed with and considered as a part of this permit, together with the following named conditions and requirements.

This permit shall become effective on: December 1, 2013

This permit shall expire on: June 30, 2018

Issuance date: November 1, 2013



for Sandra K. Dudley, Ph.D., P.E.
Director

A. GENERAL REQUIREMENTS

The treatment system shall be monitored by the permittee as specified below:

<u>Parameter</u>	<u>Sample Type</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency</u>
Flow *	Totalizer			Daily
BOD ₅	Grab	45 mg/l	N/A	Once/Year
Ammonia as N	Grab	Report	N/A	Once /Quarter

* Report average daily flow for each calendar month.

Sampling requirements in the table above apply to effluent being discharged to the drip irrigation plots.

This permit allows the operation of a wastewater drip irrigation system. There shall be no discharge of wastewater to any surface stream or any location where it is likely to enter surface waters. There shall be no discharge of wastewater to any open throat sinkhole. In addition, the drip irrigation system shall be operated in a manner preventing the creation of a health hazard or a nuisance.

Instances of ponding or pools under dry weather conditions shall be promptly investigated and remedied. Instances of ponding or pools, or any wastewater runoff shall be noted on the monthly operation report. The report shall include details regarding the location(s), determined cause(s), the actions taken to eliminate the ponding or pools, or any wastewater runoff, and the dates the corrective actions were made. Any wastewater runoff due to improper operation must be reported in writing to the Division of Water Resources, Knoxville Environmental Field Office within 5 days of discovery by the permittee.

All drip fields shall be fenced sufficiently to prevent or impede unauthorized entry as well as to protect the facility from vandalism. Fencing shall be a minimum of four feet in height. Fencing shall be constructed of durable materials. Gates shall be designed and constructed in a manner to prevent or impede unauthorized entry. All designs are subject to division approval. Fence shall be installed prior to beginning of operation.

The site shall be inspected by the certified operator or his/her designee, at a minimum, once per fourteen days (default) OR in accordance with an operating and maintenance inspection schedule in the permit administrative file record. The default inspection frequency will apply if an operating and maintenance inspection schedule is not submitted to be a part of the permit administrative file record. The operating and maintenance inspection schedule shall at a minimum evaluate the following via onsite visits or telemetry monitoring or a combination of the two:

- the condition of the treatment facility security controls (doors, fencing, gates, etc.),
- the condition of the drip area security controls (doors, fencing, gates, etc.),
- the condition of the site signage,
- the operational status of the mechanical parts of the treatment system (pumps, filters, telemetry equipment, etc.)
- the condition of the UV bulbs (if applicable)

Submission of the schedule, or revisions to the schedule, may be submitted to the division electronically. The schedule shall be submitted on or before the effective date of the permit. The permittee is responsible for maintaining evidence that the schedule, or revisions, have been submitted to the division.

B. MONITORING PROCEDURES

1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge, and shall be taken at the following location(s):

Effluent to drip irrigation plots.

2. Test Procedures

Unless otherwise noted in the permit, all pollutant parameters shall be determined according to methods prescribed in Title 40, CFR, Part 136.

C. DEFINITIONS

The "daily maximum concentration" is a limitation on the average concentration, in milligrams per liter, of the discharge during any calendar day.

The "**monthly average concentration**", other than for *E. coli* bacteria, is the arithmetic mean of all the composite or grab samples collected in a one-calendar month period.

A "grab sample" is a single influent or effluent sample collected at a particular time.

For the purpose of this permit, "*continuous monitoring*" means collection of samples using a probe and a recorder with at least one data point per dosing cycle.

A "quarter" is defined as any one of the following three-month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, and/or October 1 through December 31.

D. REPORTING

1. Monitoring Results

Monitoring results shall be recorded monthly OR in accordance with the operating and maintenance inspection schedule in the permit administrative file record and submitted quarterly. The quarterly report shall detail the following:

Submittals shall be postmarked no later than 15 days after the completion of the reporting period. A copy should be retained for the permittee's files. Operation reports and any communication regarding compliance with the conditions of this permit must be sent to:

Division of Water Resources
Knoxville Environmental Field Office
3711 Middlebrook Pike
Knoxville, TN 37921

The first operation report is due on the 15th of the month following the quarter containing the permit effective date. Until the construction of the treatment system is complete and the treatment system is placed into operation, operational reports shall report "monitoring not required".

2. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified in 1200-4-5-.07(4)(h)2, the results of such monitoring shall be included in the calculation and reporting of the values required in the Quarterly Operation Report. Such increased frequency shall also be indicated.

3. Falsifying Reports

Knowingly making any false statement on any report required by this permit may result in the imposition of criminal penalties as provided for in Section 69-3-115 of the Tennessee Water Quality Control Act.

4. Signatory Requirement

All reports or information submitted to the commissioner shall be signed and certified by the persons identified in Rules 1200-4-5-.05(6)(a-c).

E. SCHEDULE OF COMPLIANCE

Full operational level shall be attained after the construction of the treatment system is complete and the treatment system is placed into operation.

PART II

A. GENERAL PROVISIONS

1. Duty to Reapply

The permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Director of Water Resources (the "Director") no later than 180 days prior to the expiration date.

2. Right of Entry

The permittee shall allow the Director, or authorized representatives, upon the notification of permittee and presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and at reasonable times to copy these records;

b. To inspect at reasonable times any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this permit; and

c. To sample at reasonable times any discharge of pollutants.

3. Availability of Reports

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Water Resources.

4. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. Backup continuous pH and flow monitoring equipment are not required.

The monitoring frequency stated in this permit shall not be construed as specifying a minimum level of operator attention to the facility. It is anticipated that visits to the treatment facility by the operator will occur at intervals frequent enough to assure proper operation and maintenance, but in no case less than one visit every fourteen days OR in accordance with an operating and

maintenance inspection schedule in the permit administrative file record. If monitoring reports, division's inspection reports, or other information indicates a problem with the facility, the permittee may be subject to enforcement action and/or the permit may be modified to include increased parameter monitoring, increased monitoring frequency or other requirements as deemed necessary by the division to correct the problem. The permittee shall ensure that the certified operator is in charge of the facility and observes the operation of the system frequently enough to ensure its proper operation and maintenance regardless of the monitoring frequency stated in the permit

Dilution water shall not be added to comply with effluent requirements.

The drip dispersal area shall not be used for vehicular traffic or vehicular parking. Dozers, trucks, tractors, and other heavy vehicles shall not be allowed to run over the drip dispersal area lines or other parts of the system.

5. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

6. Severability

The provisions of this permit are severable. If any provision of this permit due to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

7. Other Information

If the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, then he shall promptly submit such facts or information.

B. CHANGES AFFECTING THE PERMIT

1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Permit Modification, Revocation, or Termination

a. This permit may be modified, revoked and reissued, or terminated for cause as described in section 69-108-(F) The Tennessee Water Quality Control Act as amended.

b. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

3. Change of Ownership

This permit may be transferred to another person by the permittee if:

a. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and

c. The Director, within 30 days, does not notify the current permittee and the new permittee of his intent to modify, revoke or reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

4. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

C. NONCOMPLIANCE

1. Effect of Noncompliance

Any permit noncompliance constitutes a violation of applicable State laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

2. Reporting of Noncompliance

a. 24-Hour Reporting

In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the appropriate Division environmental assistance center within 24 hours from the time the permittee becomes aware of the circumstances. (The environmental field office should be contacted for names and phone numbers of emergency response personnel.)

A written submission must be provided within five days of the time the permittee becomes aware of the circumstances unless this requirement is waived by the Director on a case-by-case basis. The permittee shall provide the Director with the following information:

- i. A description of the discharge and cause of noncompliance;
- ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- iii. The steps being taken to reduce, eliminate, and prevent recurrence of the non complying discharge.

b. Scheduled Reporting

For instances of noncompliance which are not reported under subparagraph 2.a. above, the permittee shall report the noncompliance on the Quarterly Operation Report. The report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

3. Overflow

a. "**Overflow**" means the unintended discharge to land or waters of Tennessee of wastes from any portion of the collection, transmission, or treatment system other than through permitted outfalls.

b. Overflows are prohibited.

c. The permittee shall operate the collection system so as to avoid overflows. No new or additional flows shall be added upstream of any point in the collection system, which experiences chronic overflows (greater than 5 events per year) or would otherwise overload any portion of the system.

d. Unless there is specific enforcement action to the contrary, the permittee is relieved of this requirement after: 1) an authorized representative of the Commissioner of the Department of Environment and Conservation has approved an engineering report and construction plans and specifications prepared in accordance with accepted engineering practices for correction of the problem; 2) the correction work is underway; and 3) the cumulative, peak-design, flows potentially added from new connections and line extensions upstream of any chronic overflow point are less than or proportional to the amount of inflow and infiltration removal documented upstream of that point. The inflow and infiltration reduction must be measured by the permittee using practices that are customary in the environmental engineering field and reported in an attachment to a Monthly Operating Report submitted to the local TDEC Environmental Field Office on a quarterly basis. The data measurement period shall be sufficient to account for seasonal rainfall patterns and seasonal groundwater table elevations.

e. In the event that more than 5 overflows have occurred from a single point in the collection system for reasons that may not warrant the self-imposed moratorium or completion of the actions identified in this paragraph, the permittee may request a meeting with the Division of Water Resources EFO staff to petition for a waiver based on mitigating evidence.

4. Upset

a. "**Upset**" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- i. An upset occurred and that the permittee can identify the cause(s) of the upset;
- ii. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;
- iii. The permittee submitted information required under "Reporting of Noncompliance" within 24-hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days); and
- iv. The permittee complied with any remedial measures required under "Adverse Impact."

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

6. Bypass

a. "**Bypass**" is the intentional diversion of wastewater away from any portion of a treatment facility. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypasses are prohibited unless all of the following 3 conditions are met:

i. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There are no feasible alternatives to bypass, such as the construction and use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass, which occurred during normal periods of equipment downtime or preventative maintenance;

iii. The permittee submits notice of an unanticipated bypass to the Division of Water Resources in the appropriate Environmental Field Office within 24 hours of becoming aware of the bypass (if this information is provided orally, a written submission must be provided within five days). When the need for the bypass is foreseeable, prior notification shall be submitted to the director, if possible, at least 10 days before the date of the bypass.

c. Bypasses not exceeding permit limitations are allowed **only** if the bypass is necessary for essential maintenance to assure efficient operation. All other bypasses are prohibited. Allowable bypasses not exceeding limitations are not subject to the reporting requirements of 6.b.iii, above.

7. Washout

a. For domestic wastewater plants only, a "washout" shall be defined as loss of Mixed Liquor Suspended Solids (MLSS) of 30.00% or more. This refers to the MLSS in the aeration basin(s) only. This does not include MLSS decrease due to solids wasting to the sludge disposal system. A washout can be caused by improper operation or from peak flows due to infiltration and inflow.

b. A washout is prohibited. If a washout occurs the permittee must report the incident to the Division of Water Resources in the appropriate Environmental Field Office within 24 hours by telephone. A written submission must be provided within five days. The washout must be noted on the discharge monitoring report. Each day of a washout is a separate violation.

D. LIABILITIES

1. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability Under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

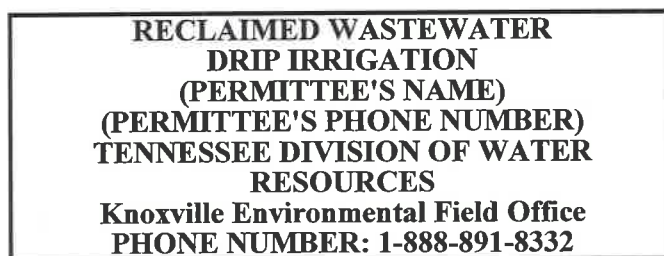
**PART III
OTHER REQUIREMENTS**

A. CERTIFIED OPERATOR

The waste treatment facilities shall be operated under the supervision of a Biological Natural System certified wastewater treatment operator and collection system shall be operated under the supervision of a the grade I certified collection system operator in accordance with the Water Environmental Health Act of 1984.

B. PLACEMENT OF SIGNS

The permittee shall place a sign at the entrance if the drip area if fenced or all reasonable approaches to the drip irrigation lot. The sign should be clearly visible to the public. The minimum sign size should be two feet by two feet (2' x 2') with one inch (1") letters. The sign should be made of durable material



C. ADDITION OF WASTE LOADS

The permittee may not add wasteloads to the existing treatment system without the knowledge and approval of the division.

D. SEPTIC TANK OPERATION

The proper operation of this treatment system depends, largely, on the efficient use of the septic tank. The solids that accumulate in the tank shall be removed at a frequency that is sufficient to insure that the treatment plant will comply with the discharge requirements of this permit.

E. SEPTAGE MANAGEMENT PRACTICES

The permittee must comply with the provisions of Rule 1200-01-06-.22. If the septage is transported to another POTW for disposal, the permittee shall note the amount of septage wasted in gallons and name of the facility the hauler intends to use for disposal of the septage on the monthly operation report. Sludge or any other material removed by any treatment works must be disposed of in a manner which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and Tennessee Hazardous Waste Management Act, TCA 68-46-101 et seq.

F. OWNERSHIP OF THE TREATMENT FACILITIES

a. The permittee shall own the treatment facilities (and the land upon which they are constructed) including the land to be utilized for drip or spray irrigation. A perpetual easement (properly recorded) may be accepted in lieu of ownership. If the permittee elects to make the treated wastewater available for reuse (irrigation of a golf course for example) a backup dedicated land application site must be provided or a perpetual easement must be obtained for the property where reuse is to take place. The perpetual easement must allow year-round application of the wastewater except where the permittee has provided (and the division has approved) storage facilities for periods when reuse is not available. Evidence of ownership of the treatment facility land application site(s) and/or a copy of the perpetual easement(s) must be furnished to the division for approval prior to construction of the wastewater collection and treatment system.

b. Where the treatment facility serves private homes, condominiums, apartments, retirement homes, nursing homes, trailer parks, or any other place where the individuals being served have property ownership, rental agreements, or other agreements that would prevent their being displaced in the even of abandonment or noncompliance of the sewerage system, ownership of the treatment facilities must be by a municipality, a public utility, a wastewater authority, or a privately owned public utility (having a Certificate of Convenience and Necessity from the Tennessee Regulatory Authority), or another public agency.

Modification Rationale
August 2013

In June 2013, the division received an engineering report for modifying the sewerage system to include additional 2 to 3 acres of new drip irrigation disposal area. This permit modification formally allows TWS to use that area. No permit terms and conditions are being changed with this modification. No additional UIC authorization is required. The new soil area will be added to the UIC authorization inventory.

This modified permit also reflects the current address of the division.

Attachment 1
STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES-WATER SUPPLY BRANCH
GROUND WATER MANAGEMENT SECTION
9th Floor, 401 Church Street
Nashville, Tennessee 37243-1549

MEMORANDUM

TO: Hari Akunuri, WPC-CO

FROM: Allen Rather, DWS- Ground Water Management Section

DATE: 4/29/2013

SUBJECT: LCSS/SFDS (Class V Injection) Approval
Smoky Village Subdivision
Kodak, Sevier County, Tennessee
UIC File SEV 0000069 SOP-05033

The Division of Water Resources has reviewed the submittal of an Application for Authorization to Operate a Class V Underground Injection Well (Large Capacity Septic System/Subsurface Fluid Disposal System) utilizing conventional disposal for the waste water at the Smoky Village Subdivision located at Kodak, Sevier County, Tennessee. This Division approves the application dated 4/19/2013.

If at any time the Division learns that a ground water discharge system may be in violation of The Tennessee Water Quality Control Act, the Division shall:

- a. require the injector to apply for an individual permit;
- b. order the injector to take such actions including, where required, closure of the injection well as may be necessary to prevent the violation; or
- c. take enforcement action.

All groundwater discharge activities must operate in such a manner that they do not present a hazard to groundwater.

Adenus shall also conduct a monthly visual inspection of the complete drip field looking for any signs of failure.

In accordance with Underground Injection Control (UIC) Rule 1200-4-6-.14 (3) "The owner of a Class V well shall be responsible for notifying the Department of change in ownership." This notification must be made to this Division within thirty (30) days of the change in ownership.

Also note that according to Underground Injection Control (UIC) Rule 1200-4-6-.14 (8)(d) "Upon completion of the well, the owner or operator must certify to the Department that the well has been completed in accordance with the approved construction plan, and must submit any other additional information required". The certification must be submitted to the UIC Program within thirty (30) days upon the completion/closure of the Class V well.

This Division will require a minimum of seven (7) working days advance notice before the construction on the drip system is to begin to allow for a witness from this Division to be present.

No drip emitters are to discharge directly into an open throat or crevice in the subsurface. All drip lines are to be installed on contour.

Our concurrence with your approach does not imply that this procedure is exempt from future changes or restrictions in the Underground Injection Control (UIC) Regulations, or any additional requirements set forth by the Division in order to protect the groundwater of Tennessee.

A copy of this authorization must be kept on site until the development has been completed and must be made available to inspection personnel.

Should you have any questions or comments please feel free to contact me at (615) 532-5819 or allen.rather@tn.gov.

c: file



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

March 10, 2017

Mr. Charles R. Hyatt, CEO
Adenus Group, LLC
e-copy: charles.hyatt@adenus.com
849 Aviation Parkway
Smyrna, TN 37167

Re: State Operating Permit No. SOP-01028
Tennessee Wastewater Systems, Inc.
Maple Green Reclamation Facility
Coopertown, Robertson County, Tennessee

Dear Mr. Hyatt:

In accordance with the provisions of the Tennessee Water Quality Control Act, Tennessee Code Annotated (T.C.A.), Sections 69-3-101 through 69-3-120, the Division of Water Resources hereby issues the enclosed State Operating Permit. The continuance and/or reissuance of this Permit is contingent upon your meeting the conditions and requirements as stated therein.

Please be advised that a petition for permit appeal may be filed, pursuant to T.C.A. Section 69-3-105, subsection (i), by the permit applicant or by any aggrieved person who participated in the public comment period or gave testimony at a formal public hearing whose appeal is based upon any of the issues that were provided to the commissioner in writing during the public comment period or in testimony at a formal public hearing on the permit application. Additionally, for those permits for which the department gives public notice of a draft permit, any permit applicant or aggrieved person may base a permit appeal on any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment. Any petition for permit appeal under this subsection (i) shall be filed with the technical secretary of the Water Resources Board within thirty (30) days after public notice of the commissioner's decision to issue or deny the permit. A copy of the filing should also be sent to TDEC's Office of General Counsel.

If you have questions, please contact the Nashville Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Mr. Hari Akunuri at (615) 532-0650 or by E-mail at Hari.Akunuri@tn.gov.

Sincerely,

Brad C. Harris, P.E.
Manager, Land-based Systems

Enclosure

cc/ec: Water-based Systems File
Nashville Environmental Field Office
Mr. Allen Rather, Environmental Specialist 5, TDEC Division of Water Resources, Allen.Rather@tn.gov
Mr. Brian Carter, Maintenance Manager, Adenus Operations LLC, brian.carter@adenus.com
Ms. Michelle Ramsey, Utilities Division, Tennessee Regulatory Authority, michelle.ramsey@tn.gov

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

Modification (January 2017)

Permit No. SOP-01028

PERMIT
For the operation of Wastewater Treatment Facilities

In accordance with the provision of Tennessee Code Annotated section 69-3-108 and Regulations promulgated pursuant thereto:

PERMISSION IS HEREBY GRANTED TO

Tennessee Wastewater Systems, Inc.
Maple Green Reclamation Facility
Coopertown, Robertson County, Tennessee

FOR THE OPERATION OF

Septic tanks, effluent collection system, recirculating media filter and fenced drip irrigation system. The system is located at latitude 36.44019 and longitude -86.99603 in Robertson County, Tennessee to serve the Maple Green Reclamation Facility. The design capacity of the system is 0.09 MGD.

This permit is issued as a result of the application filed on January 20, 2017, in the office of the Tennessee Division of Water Resources. This permit is contingent on the submission and department approval of construction plans, specifications and other data in accordance with rules of the department. Updated plans and specifications must be approved before any further construction activity.

This permit shall become effective on: April 1, 2017

This permit shall expire on: June 30, 2018

Issuance date: March 8, 2017



for Tisha Calabrese Benton
Director

PART 1

A. GENERAL REQUIREMENTS

The treatment system shall be monitored by the permittee as specified below:

<u>Parameter</u>	<u>Sample Type</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency</u>
Flow *	Totalizer			Daily
BOD ₅	Grab	45 mg/l	N/A	Once/Year
Ammonia as N	Grab	Report	N/A	Once /Quarter

This permit allows the operation of a wastewater drip irrigation system. There shall be no discharge of wastewater to any surface stream or any location where it is likely to enter surface waters. There shall be no discharge of wastewater to any open throat sinkhole. In addition, the drip irrigation system shall be operated in a manner preventing the creation of a health hazard or a nuisance.

Instances of ponding or pooling within the drip dispersal area not associated with a recent rainfall event shall be promptly investigated and noted on the Monthly Operations Report. The report shall include details regarding location(s), determined cause(s), the actions taken to eliminate the ponding, and the date the corrective actions were made. Ponding resulting in the discharge of treated wastewater into the Waters of the State or to locations where it is likely to move to Waters of the State shall be considered a violation of your State Operating Permit.

All drip fields shall be fenced sufficiently to prevent or impede unauthorized entry as well as to protect the facility from vandalism. Fencing shall be a minimum of four feet in height. Fencing shall be constructed of durable materials. Gates shall be designed and constructed in a manner to prevent or impede unauthorized entry. All designs are subject to division approval. Fence shall be installed prior to beginning of operation.

The site shall be inspected by the certified operator or his/her designee, at a minimum, once per fourteen days (default) OR in accordance with an operating and maintenance inspection schedule in the permit administrative file record. The default inspection frequency will apply if an operating and maintenance inspection schedule is not submitted to be a part of the permit administrative file record. The operating and maintenance inspection schedule shall at a minimum evaluate the following via onsite visits or telemetry monitoring or a combination of the two:

- the condition of the treatment facility security controls (doors, fencing, gates, etc.),
- the condition of the drip area security controls (doors, fencing, gates, etc.),
- the condition of the site signage,
- the operational status of the mechanical parts of the treatment system (pumps, filters, telemetry equipment, etc.)

Submission of the schedule, or revisions to the schedule, may be submitted to the division electronically. The schedule shall be submitted on or before the effective date of the permit. The permittee is responsible for maintaining evidence that the schedule, or revisions, have been submitted to the division.

B. MONITORING PROCEDURES

1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge, and shall be taken at the following location(s):

Effluent to drip irrigation plots.

2. Test Procedures

Unless otherwise noted in the permit, all pollutant parameters shall be determined according to methods prescribed in Title 40, CFR, Part 136.

C. DEFINITIONS

The "daily maximum concentration" is a limitation on the average concentration, in milligrams per liter, of the discharge during any calendar day.

The "**monthly average concentration**", is the arithmetic mean of all the composite or grab samples collected in a one-calendar month period.

A "grab sample" is a single influent or effluent sample collected at a particular time.

For the purpose of this permit, "*continuous monitoring*" means collection of samples using a probe and a recorder with at least one data point per dosing cycle.

A "quarter" is defined as any one of the following three-month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, and/or October 1 through December 31.

D. REPORTING

1. Monitoring Results

Monitoring results shall be submitted quarterly. The quarterly report shall detail the following:

Submittals shall be postmarked no later than 15 days after the completion of the reporting period. A copy should be retained for the permittee's files. Operation reports and any communication regarding compliance with the conditions of this permit must be sent to:

Division of Water Resources
Nashville Environmental Field Office
711 R.S. Gass Boulevard
Nashville, TN 37216

The first operation report is due on the 15th of the month following the quarter containing the permit effective date.

2. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified in 0400-40-05-.07(2)(h)2, the results of such monitoring shall be included in the calculation and reporting of the values required in the Quarterly Operation Report. Such increased frequency shall also be indicated.

3. Falsifying Reports

Knowingly making any false statement on any report required by this permit may result in the imposition of criminal penalties as provided for in Section 69-3-115 of the Tennessee Water Quality Control Act.

4. Signatory Requirement

All reports or information submitted to the commissioner shall be signed and certified by the persons identified in Rules 0400-40-05-.05(6)(a-c).

PART II

A. GENERAL PROVISIONS

1. Duty to Reapply

The permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Director of Water Resources (the "Director") no later than 180 days prior to the expiration date.

2. Right of Entry

The permittee shall allow the Director, or authorized representatives, upon the notification of permittee and presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and at reasonable times to copy these records;

b. To inspect at reasonable times any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this permit; and

c. To sample at reasonable times any discharge of pollutants.

3. Availability of Reports

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Water Resources.

4. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. Backup continuous pH and flow monitoring equipment are not required.

The monitoring frequency stated in this permit shall not be construed as specifying a minimum level of operator attention to the facility. It is anticipated that visits to the treatment facility by the operator will occur at intervals frequent enough to assure proper operation and maintenance, but in no case less than one visit every fourteen days OR in accordance with an operating and maintenance inspection schedule in the permit administrative file record. If monitoring reports, division's inspection reports, or other information indicates a problem with the facility, the permittee may be subject to enforcement action and/or the permit may be modified to include increased parameter monitoring, increased monitoring frequency or other requirements as deemed necessary by the division to correct the problem. The permittee shall ensure that the certified operator is in charge of the facility and observes the operation of the system frequently enough to ensure its proper operation and maintenance regardless of the monitoring frequency stated in the permit

Dilution water shall not be added to comply with effluent requirements.

The drip dispersal area shall not be used for vehicular traffic or vehicular parking. Dozers, trucks, tractors, and other heavy vehicles shall not be allowed to run over the drip dispersal area lines or other parts of the system.

5. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

6. Severability

The provisions of this permit are severable. If any provision of this permit due to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

7. Other Information

If the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, then he shall promptly submit such facts or information.

B. CHANGES AFFECTING THE PERMIT

1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Permit Modification, Revocation, or Termination

a. This permit may be modified, revoked and reissued, or terminated for cause as described in section 69-3-108 (h) The Tennessee Water Quality Control Act as amended.

b. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

3. Change of Ownership

This permit may be transferred to another person by the permittee if:

a. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and

c. The Director, within 30 days, does not notify the current permittee and the new permittee of his intent to modify, revoke or reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

4. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

C. NONCOMPLIANCE

1. Effect of Noncompliance

Any permit noncompliance constitutes a violation of applicable State laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

2. Reporting of Noncompliance

a. 24-Hour Reporting

In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the appropriate Division environmental assistance center within 24 hours from the time the permittee becomes aware of the circumstances. (The environmental field office should be contacted for names and phone numbers of emergency response personnel.)

A written submission must be provided within five days of the time the permittee becomes aware of the circumstances unless this requirement is waived by the Director on a case-by-case basis. The permittee shall provide the Director with the following information:

i. A description of the discharge and cause of noncompliance;

ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

iii. The steps being taken to reduce, eliminate, and prevent recurrence of the non complying discharge.

b. Scheduled Reporting

For instances of noncompliance which are not reported under subparagraph 2.a. above, the permittee shall report the noncompliance on the Quarterly Operation Report. The report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

3. Overflow

a. "**Overflow**" means the unintended discharge to land or waters of Tennessee of wastes from any portion of the collection, transmission, or treatment system other than through permitted outfalls.

b. Overflows are prohibited.

c. The permittee shall operate the collection system so as to avoid overflows. No new or additional flows shall be added upstream of any point in the collection system, which experiences chronic overflows (greater than 5 events per year) or would otherwise overload any portion of the system.

d. Unless there is specific enforcement action to the contrary, the permittee is relieved of this requirement after: 1) an authorized representative of the Commissioner of the Department of Environment and Conservation has approved an engineering report and construction plans and specifications prepared in accordance with accepted engineering practices for correction of the problem; 2) the correction work is underway; and 3) the cumulative, peak-design, flows potentially added from new connections and line extensions upstream of any chronic overflow point are less than or proportional to the amount of inflow and infiltration removal documented upstream of that point. The inflow and infiltration reduction must be measured by the permittee using practices that are customary in the environmental engineering field and reported in an attachment to a Monthly Operating Report submitted to the local TDEC Environmental Field Office on a quarterly basis. The data measurement period shall be sufficient to account for seasonal rainfall patterns and seasonal groundwater table elevations.

e. In the event that more than 5 overflows have occurred from a single point in the collection system for reasons that may not warrant the self-imposed moratorium or completion of the actions identified in this paragraph, the permittee may request a meeting with the Division of Water Resources EFO staff to petition for a waiver based on mitigating evidence.

4. Upset

a. "**Upset**" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent

caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- i. An upset occurred and that the permittee can identify the cause(s) of the upset;
- ii. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;
- iii. The permittee submitted information required under "Reporting of Noncompliance" within 24-hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days); and
- iv. The permittee complied with any remedial measures required under "Adverse Impact."

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

6. Bypass

a. "**Bypass**" is the intentional diversion of wastewater away from any portion of a treatment facility. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypasses are prohibited unless all of the following 3 conditions are met:

- i. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;
- ii. There are no feasible alternatives to bypass, such as the construction and use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should

have been installed in the exercise of reasonable engineering judgment to prevent a bypass, which occurred during normal periods of equipment downtime or preventative maintenance;

iii. The permittee submits notice of an unanticipated bypass to the Division of Water Resources in the appropriate Environmental Field Office within 24 hours of becoming aware of the bypass (if this information is provided orally, a written submission must be provided within five days). When the need for the bypass is foreseeable, prior notification shall be submitted to the director, if possible, at least 10 days before the date of the bypass.

c. Bypasses not exceeding permit limitations are allowed **only** if the bypass is necessary for essential maintenance to assure efficient operation. All other bypasses are prohibited. Allowable bypasses not exceeding limitations are not subject to the reporting requirements of 6.b.iii, above.

7. Washout

a. For domestic wastewater plants only, a "washout" shall be defined as loss of Mixed Liquor Suspended Solids (MLSS) of 30.00% or more. This refers to the MLSS in the aeration basin(s) only. This does not include MLSS decrease due to solids wasting to the sludge disposal system. A washout can be caused by improper operation or from peak flows due to infiltration and inflow.

b. A washout is prohibited. If a washout occurs the permittee must report the incident to the Division of Water Resources in the appropriate Environmental Field Office within 24 hours by telephone. A written submission must be provided within five days. The washout must be noted on the discharge monitoring report. Each day of a washout is a separate violation.

D. LIABILITIES

1. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability Under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

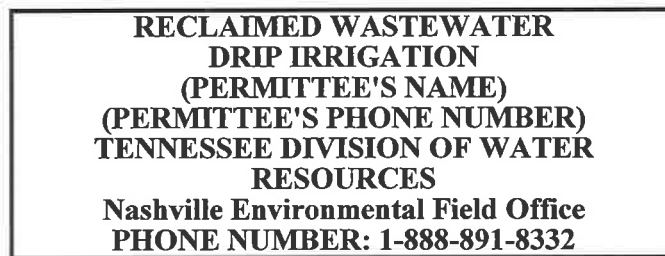
PART III OTHER REQUIREMENTS

A. CERTIFIED OPERATOR

The waste treatment facilities shall be operated under the supervision of a Biological Natural System certified wastewater treatment operator and collection system shall be operated under the supervision of a the grade I certified collection system operator in accordance with the Water Environmental Health Act of 1984.

B. PLACEMENT OF SIGNS

The permittee shall place a sign at the entrance if the drip area if fenced or all reasonable approaches to the drip irrigation lot. The sign should be clearly visible to the public. The minimum sign size should be two feet by two feet (2' x 2') with one inch (1") letters. The sign should be made of durable material



C. ADDITION OF WASTE LOADS

The permittee may not add wasteloads to the existing treatment system without the knowledge and approval of the division.

D. SEPTIC TANK OPERATION

The proper operation of this treatment system depends, largely, on the efficient use of the septic tank. The solids that accumulate in the tank shall be removed at a frequency that is sufficient to insure that the treatment plant will comply with the discharge requirements of this permit.

E. SEPTAGE MANAGEMENT PRACTICES

The permittee must comply with the provisions of Rule 0400-48-01-.22. If the septage is transported to another POTW for disposal, the permittee shall note the amount of septage wasted in gallons and name of the facility the hauler intends to use for disposal of the septage on the monthly operation report. Sludge or any other material removed by any treatment works must be disposed of in a manner which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with

the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and Tennessee Hazardous Waste Management Act, TCA 68-46-101 et seq.

F. OWNERSHIP OF THE TREATMENT FACILITIES

a. The permittee shall own the treatment facilities (and the land upon which they are constructed) including the land to be utilized for drip or spray irrigation. A perpetual easement (properly recorded) may be accepted in lieu of ownership. Evidence of ownership of the treatment facility land application site(s) and/or a copy of the perpetual easement(s) must be furnished to the division for approval prior to construction of the wastewater collection and treatment system.

b. Where the treatment facility serves private homes, condominiums, apartments, retirement homes, nursing homes, trailer parks, or any other place where the individuals being served have property ownership, rental agreements, or other agreements that would prevent their being displaced in the even of abandonment or noncompliance of the sewerage system, ownership of the treatment facilities must be by a municipality, a public utility, a wastewater authority, or a privately owned public utility (having a Certificate of Convenience and Necessity from the Tennessee Regulatory Authority), or another public agency.

Rationale
Permit modification
TN Wastewater Systems – Maple Green Reclamation Facility
SOP-01028
January 2017

The TN Wastewater Systems submitted an application for modification on January 20, 2017, to remedy a failed lagoon with recirculating media filter instead of a Free Water Surface (FWS) constructed wetlands treatment system designed in accordance with the Tennessee State *Sewerage Design Criteria* and the *Water Environment Federation, Manual of Practice No. FD-16, Natural Systems for Wastewater Treatment* (Third Edition). All monitoring requirement for constructed wetlands treatment from previous permit are deleted in this modification.

Attachment 1

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES-WATER SUPPLY BRANCH
GROUND WATER MANAGEMENT SECTION
9th Floor, 401 Church Street
Nashville, Tennessee 37243-1549

MEMORANDUM

TO: Hari Akunuri, WPC-CO

FROM: Allen Rather, DWS- Ground Water Management Section

DATE: 10/21/2015

SUBJECT: LCSS/SFDS (Class V Injection) Approval
Maple Green Reclamation Facility
Coopertown, Robertson County, Tennessee
UIC File ROB 0000033 SOP-01028

The Division of Water Resources has reviewed the submittal of an Application for Authorization to Operate a Class V Underground Injection Well (Large Capacity Septic System/Subsurface Fluid Disposal System) utilizing conventional disposal for the waste water at the Maple Green Reclamation Facility located at Coopertown, Robertson County, Tennessee. This Division approves the application dated 9/08/2015.

If at any time the Division learns that a ground water discharge system may be in violation of The Tennessee Water Quality Control Act, the Division shall:

- a. require the injector to apply for an individual permit;
- b. order the injector to take such actions including, where required, closure of the injection well as may be necessary to prevent the violation; or
- c. take enforcement action.

All groundwater discharge activities must operate in such a manner that they do not present a hazard to groundwater.

Adenus shall also conduct a monthly visual inspection of the complete drip field looking for any signs of failure.

In accordance with Underground Injection Control (UIC) Rule 1200-4-6-.14 (3) "The owner of a Class V well shall be responsible for notifying the Department of change in ownership." This notification must be made to this Division within thirty (30) days of the change in ownership.

Also note that according to Underground Injection Control (UIC) Rule 1200-4-6-.14 (8)(d) "Upon completion of the well, the owner or operator must certify to the Department that the well has been completed in accordance with the approved construction plan, and must submit any other additional information required". The certification must be submitted to the UIC Program within thirty (30) days upon the completion/closure of the Class V well.

This Division will require a minimum of seven (7) working days advance notice before the construction on the drip system is to begin to allow for a witness from this Division to be present.

No drip emitters are to discharge directly into an open throat or crevice in the subsurface. All drip lines are to be installed on contour.

Our concurrence with your approach does not imply that this procedure is exempt from future changes or restrictions in the Underground Injection Control (UIC) Regulations, or any additional requirements set forth by the Division in order to protect the groundwater of Tennessee.

A copy of this authorization must be kept on site until the development has been completed and must be made available to inspection personnel.

Should you have any questions or comments please feel free to contact me at (615) 532-5819 or allen.rather@tn.gov.

c: file



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

March 10, 2017

Mr. Charles R. Hyatt, CEO
Adenus Group, LLC
e-copy: charles.hyatt@adenus.com
849 Aviation Parkway
Smyrna, TN 37167

Re: State Operating Permit No. SOP-05039
Tennessee Wastewater Systems, Inc.
Cedar Hill Treatment Facility
Cedar Hill, Robertson County, Tennessee

Dear Mr. Hyatt:

In accordance with the provisions of the Tennessee Water Quality Control Act, Tennessee Code Annotated (T.C.A.), Sections 69-3-101 through 69-3-120, the Division of Water Resources hereby issues the enclosed State Operating Permit. The continuance and/or reissuance of this Permit is contingent upon your meeting the conditions and requirements as stated therein.

Please be advised that a petition for permit appeal may be filed, pursuant to T.C.A. Section 69-3-105, subsection (i), by the permit applicant or by any aggrieved person who participated in the public comment period or gave testimony at a formal public hearing whose appeal is based upon any of the issues that were provided to the commissioner in writing during the public comment period or in testimony at a formal public hearing on the permit application. Additionally, for those permits for which the department gives public notice of a draft permit, any permit applicant or aggrieved person may base a permit appeal on any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment. Any petition for permit appeal under this subsection (i) shall be filed with the technical secretary of the Water Resources Board within thirty (30) days after public notice of the commissioner's decision to issue or deny the permit. A copy of the filing should also be sent to TDEC's Office of General Counsel.

If you have questions, please contact the Nashville Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Mr. Hari Akunuri at (615) 532-0650 or by E-mail at Hari.Akunuri@tn.gov.

Sincerely,

Brad C. Harris, P.E.
Manager, Land-based Systems

Enclosure

cc/ec: Water-based Systems File
Nashville Environmental Field Office
Ms. Michelle Ramsey, Utilities Division, Tennessee Regulatory Authority, michelle.ramsey@tn.gov
Ms. Patsy Fulton, Utility Rate Specialist, Tennessee Regulatory Authority, Patsy.Fulton@tn.gov
Mr. Brian Carter, Maintenance Manager, Adenus Operations LLC, brian.carter@adenus.com

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

Modification (January 2017)

Permit No. SOP-05039

PERMIT
For the operation of Wastewater Treatment Facilities

In accordance with the provision of Tennessee Code Annotated section 69-3-108 and Regulations promulgated pursuant thereto:

PERMISSION IS HEREBY GRANTED TO

Tennessee Wastewater Systems, Inc.
Cedar Hill Treatment Facility
Cedar Hill, Robertson County, Tennessee

FOR THE OPERATION OF

Septic tanks, effluent collection system, recirculating media filter and fenced drip irrigation system located at latitude 36.571 and longitude -86.97883 in Robertson County, Tennessee to serve Cedar Hill Reclamation Facility. The design capacity of the system is 0.06 MGD.

This permit is issued as a result of the application filed on January 20, 2017, in the office of the Tennessee Division of Water Resources. This permit is contingent on the submission and department approval of construction plans, specifications and other data in accordance with rules of the department. Updated plans and specifications must be approved before any further construction activity.

This permit shall become effective on: April 1, 2017

This permit shall expire on: January 31, 2021

Issuance date: March 8, 2017



for Tisha Calabrese Benton
Director

A. GENERAL REQUIREMENTS

The treatment system shall be monitored by the permittee as specified below:

<u>Parameter</u>	<u>Sample Type</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency</u>
Flow *	Totalizer			Daily
BOD ₅	Grab	45 mg/l	N/A	Once/Year
Ammonia as N	Grab	Report	N/A	Once /Quarter

* Report average daily flow for each calendar month.

This permit allows the operation of a wastewater drip irrigation system. There shall be no discharge of wastewater to any surface stream or any location where it is likely to enter surface waters. There shall be no discharge of wastewater to any open throat sinkhole. In addition, the drip irrigation system shall be operated in a manner preventing the creation of a health hazard or a nuisance.

Instances of ponding or pooling within the drip dispersal area not associated with a recent rainfall event shall be promptly investigated and noted on the Monthly Operations Report. The report shall include details regarding location(s), determined cause(s), the actions taken to eliminate the ponding, and the date the corrective actions were made. Ponding resulting in the discharge of treated wastewater into the Waters of the State or to locations where it is likely to move to Waters of the State shall be considered a violation of your State Operating Permit.

All drip fields shall be fenced sufficiently to prevent or impede unauthorized entry as well as to protect the facility from vandalism. Fencing shall be a minimum of four feet in height. Fencing shall be constructed of durable materials. Gates shall be designed and constructed in a manner to prevent or impede unauthorized entry. All designs are subject to division approval. Fence shall be installed prior to beginning of operation.

All drip lines shall be buried and maintained 6 to 10 inches below the ground surface.

The site shall be inspected by the certified operator or his/her designee, at a minimum, once per fourteen days (default) OR in accordance with an operating and maintenance inspection schedule in the permit administrative file record. The default inspection frequency will apply if an operating and maintenance inspection schedule is not submitted to be a part of the permit administrative file record. The operating and maintenance inspection schedule shall at a minimum evaluate the following via onsite visits or telemetry monitoring or a combination of the two:

- the condition of the treatment facility security controls (doors, fencing, gates, etc.),
- the condition of the drip area security controls (doors, fencing, gates, etc.),
- the condition of the site signage,

- the operational status of the mechanical parts of the treatment system (pumps, filters, telemetry equipment, etc.)

Submission of the schedule, or revisions to the schedule, may be submitted to the division electronically. The schedule shall be submitted on or before the effective date of the permit. The permittee is responsible for maintaining evidence that the schedule, or revisions, have been submitted to the division.

B. MONITORING PROCEDURES

1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge, and shall be taken at the following location(s):

Effluent to drip irrigation plots.

2. Test Procedures

Unless otherwise noted in the permit, all pollutant parameters shall be determined according to methods prescribed in Title 40, CFR, Part 136.

C. DEFINITIONS

The "daily maximum concentration" is a limitation on the average concentration, in milligrams per liter, of the discharge during any calendar day.

The "**monthly average concentration**", other than for *E. coli* bacteria, is the arithmetic mean of all the composite or grab samples collected in a one-calendar month period.

A "grab sample" is a single influent or effluent sample collected at a particular time.

For the purpose of this permit, "*continuous monitoring*" means collection of samples using a probe and a recorder with at least one data point per dosing cycle.

A "quarter" is defined as any one of the following three-month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, and/or October 1 through December 31.

D. REPORTING

1. Monitoring Results

Monitoring results shall be recorded monthly OR in accordance with the operating and maintenance inspection schedule in the permit administrative file record and submitted quarterly. The quarterly report shall detail the following:

Submittals shall be postmarked no later than 15 days after the completion of the reporting period. A copy should be retained for the permittee's files. Operation reports and any communication regarding compliance with the conditions of this permit must be sent to:

Division of Water Resources
Nashville Environmental Field Office
711 R.S. Gass Boulevard
Nashville, TN 37216

The first operation report is due on the 15th of the month following the quarter containing the permit effective date. Until the construction of the treatment system is complete and the treatment system is placed into operation, operational reports shall report "monitoring not required".

2. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified in 0400-40-05-.07(2)(h)2, the results of such monitoring shall be included in the calculation and reporting of the values required in the Quarterly Operation Report. Such increased frequency shall also be indicated.

3. Falsifying Reports

Knowingly making any false statement on any report required by this permit may result in the imposition of criminal penalties as provided for in Section 69-3-115 of the Tennessee Water Quality Control Act.

4. Signatory Requirement

All reports or information submitted to the commissioner shall be signed and certified by the persons identified in Rules 0400-40-05-.05(6)(a-c).

E. SCHEDULE OF COMPLIANCE

Full operational level shall be attained after the construction of the treatment system is complete and the treatment system is placed into operation.

PART II

A. GENERAL PROVISIONS

1. Duty to Reapply

The permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Director of Water Resources (the "Director") no later than 180 days prior to the expiration date.

2. Right of Entry

The permittee shall allow the Director, or authorized representatives, upon the notification of permittee and presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and at reasonable times to copy these records;

b. To inspect at reasonable times any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this permit; and

c. To sample at reasonable times any discharge of pollutants.

3. Availability of Reports

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Water Resources.

4. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to

achieve compliance with the conditions of the permit. Backup continuous pH and flow monitoring equipment are not required.

The monitoring frequency stated in this permit shall not be construed as specifying a minimum level of operator attention to the facility. It is anticipated that visits to the treatment facility by the operator will occur at intervals frequent enough to assure proper operation and maintenance, but in no case less than one visit every fourteen days OR in accordance with an operating and maintenance inspection schedule in the permit administrative file record. If monitoring reports, division's inspection reports, or other information indicates a problem with the facility, the permittee may be subject to enforcement action and/or the permit may be modified to include increased parameter monitoring, increased monitoring frequency or other requirements as deemed necessary by the division to correct the problem. The permittee shall ensure that the certified operator is in charge of the facility and observes the operation of the system frequently enough to ensure its proper operation and maintenance regardless of the monitoring frequency stated in the permit

Dilution water shall not be added to comply with effluent requirements.

The drip dispersal area shall not be used for vehicular traffic or vehicular parking. Dozers, trucks, tractors, and other heavy vehicles shall not be allowed to run over the drip dispersal area lines or other parts of the system.

5. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

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The provisions of this permit are severable. If any provision of this permit due to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

7. Other Information

If the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, then he shall promptly submit such facts or information.

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1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Permit Modification, Revocation, or Termination

a. This permit may be modified, revoked and reissued, or terminated for cause as described in section 69-3-108 (h) The Tennessee Water Quality Control Act as amended.

b. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

3. Change of Ownership

This permit may be transferred to another person by the permittee if:

a. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and

c. The Director, within 30 days, does not notify the current permittee and the new permittee of his intent to modify, revoke or reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

4. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

C. NONCOMPLIANCE

1. Effect of Noncompliance

Any permit noncompliance constitutes a violation of applicable State laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

2. Reporting of Noncompliance

a. 24-Hour Reporting

In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the appropriate Division environmental assistance center within 24 hours from the time the permittee becomes aware of the circumstances. (The environmental field office should be contacted for names and phone numbers of emergency response personnel.)

A written submission must be provided within five days of the time the permittee becomes aware of the circumstances unless this requirement is waived by the Director on a case-by-case basis. The permittee shall provide the Director with the following information:

- i. A description of the discharge and cause of noncompliance;
- ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- iii. The steps being taken to reduce, eliminate, and prevent recurrence of the non complying discharge.

b. Scheduled Reporting

For instances of noncompliance which are not reported under subparagraph 2.a. above, the permittee shall report the noncompliance on the Quarterly Operation Report. The report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

3. Overflow

a. "**Overflow**" means the unintended discharge to land or waters of Tennessee of wastes from any portion of the collection, transmission, or treatment system other than through permitted outfalls.

b. Overflows are prohibited.

c. The permittee shall operate the collection system so as to avoid overflows. No new or additional flows shall be added upstream of any point in the collection system, which experiences chronic overflows (greater than 5 events per year) or would otherwise overload any portion of the system.

d. Unless there is specific enforcement action to the contrary, the permittee is relieved of this requirement after: 1) an authorized representative of the Commissioner of the Department of Environment and Conservation has approved an engineering report and construction plans and specifications prepared in accordance with accepted engineering practices for correction of the problem; 2) the correction work is underway; and 3) the cumulative, peak-design, flows potentially added from new connections and line extensions upstream of any chronic overflow point are less than or proportional to the amount of inflow and infiltration removal documented upstream of that point. The inflow and infiltration reduction must be measured by the permittee using practices that are customary in the environmental engineering field and reported in an attachment to a Monthly Operating Report submitted to the local TDEC Environmental Field Office on a quarterly basis. The data measurement period shall be sufficient to account for seasonal rainfall patterns and seasonal groundwater table elevations.

e. In the event that more than 5 overflows have occurred from a single point in the collection system for reasons that may not warrant the self-imposed moratorium or completion of the actions identified in this paragraph, the permittee may request a meeting with the Division of Water Resources EFO staff to petition for a waiver based on mitigating evidence.

4. Upset

a. "*Upset*" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- i. An upset occurred and that the permittee can identify the cause(s) of the upset;
- ii. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;
- iii. The permittee submitted information required under "Reporting of Noncompliance" within 24-hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days); and
- iv. The permittee complied with any remedial measures required under "Adverse Impact."

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or

additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

6. Bypass

a. **"Bypass"** is the intentional diversion of wastewater away from any portion of a treatment facility. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypasses are prohibited unless all of the following 3 conditions are met:

i. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There are no feasible alternatives to bypass, such as the construction and use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass, which occurred during normal periods of equipment downtime or preventative maintenance;

iii. The permittee submits notice of an unanticipated bypass to the Division of Water Resources in the appropriate Environmental Field Office within 24 hours of becoming aware of the bypass (if this information is provided orally, a written submission must be provided within five days). When the need for the bypass is foreseeable, prior notification shall be submitted to the director, if possible, at least 10 days before the date of the bypass.

c. Bypasses not exceeding permit limitations are allowed **only** if the bypass is necessary for essential maintenance to assure efficient operation. All other bypasses are prohibited. Allowable bypasses not exceeding limitations are not subject to the reporting requirements of 6.b.iii, above.

7. Washout

a. For domestic wastewater plants only, a "washout" shall be defined as loss of Mixed Liquor Suspended Solids (MLSS) of 30.00% or more. This refers to the MLSS in the aeration basin(s) only. This does not include MLSS decrease due to solids wasting to the sludge disposal system. A washout can be caused by improper operation or from peak flows due to infiltration and inflow.

b. A washout is prohibited. If a washout occurs the permittee must report the incident to the Division of Water Resources in the appropriate Environmental Field Office within 24 hours by

telephone. A written submission must be provided within five days. The washout must be noted on the discharge monitoring report. Each day of a washout is a separate violation.

D. LIABILITIES

1. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability Under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

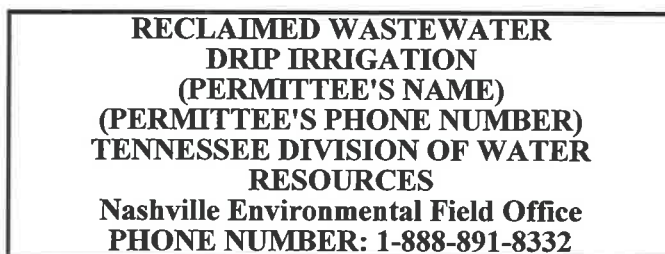
PART III OTHER REQUIREMENTS

A. CERTIFIED OPERATOR

The waste treatment facilities shall be operated under the supervision of a Biological Natural System certified wastewater treatment operator and collection system shall be operated under the supervision of a the grade I certified collection system operator in accordance with the Water Environmental Health Act of 1984.

B. PLACEMENT OF SIGNS

The permittee shall place a sign at the entrance if the drip area is fenced or all reasonable approaches to the drip irrigation lot. The sign should be clearly visible to the public. The minimum sign size should be two feet by two feet (2' x 2') with one inch (1") letters. The sign should be made of durable material



No later than sixty (60) days from the effective date of the permit, the permittee shall have the above sign(s) on display in the location specified. New facilities must have the signs installed upon commencing operation.

C. ADDITION OF WASTE LOADS

The permittee may not add wasteloads to the existing treatment system without the knowledge and approval of the division.

D. SEPTIC TANK OPERATION

The proper operation of this treatment system depends, largely, on the efficient use of the septic tank. The solids that accumulate in the tank shall be removed at a frequency that is sufficient to insure that the treatment plant will comply with the discharge requirements of this permit.

E. SEPTAGE MANAGEMENT PRACTICES

The permittee must comply with the provisions of Rule 0400-48-01-.22. If the septage is transported to another POTW for disposal, the permittee shall note the amount of septage wasted in gallons and name of the facility the hauler intends to use for disposal of the septage on the monthly operation report. Sludge or any other material removed by any treatment works must be disposed of in a manner which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and Tennessee Hazardous Waste Management Act, TCA 68-46-101 et seq.

F. OWNERSHIP OF THE TREATMENT FACILITIES

a. The permittee shall own the treatment facilities (and the land upon which they are constructed) including the land to be utilized for drip or spray irrigation. A perpetual easement (properly recorded) may be accepted in lieu of ownership. Evidence of ownership of the treatment facility land application site(s) and/or a copy of the perpetual easement(s) must be furnished to the division for approval prior to construction of the wastewater collection and treatment system.

b. Where the treatment facility serves private homes, condominiums, apartments, retirement homes, nursing homes, trailer parks, or any other place where the individuals being served have property ownership, rental agreements, or other agreements that would prevent their being displaced in the even of abandonment or noncompliance of the sewerage system, ownership of the treatment facilities must be by a municipality, a public utility, a wastewater authority, or a privately owned public utility (having a Certificate of Convenience and Necessity from the Tennessee Regulatory Authority), or another public agency.

Rationale
Permit modification
TN Wastewater Systems – Cedar Hill Treatment Facility
SOP-05039
January 2017

The TN Wastewater Systems submitted an application for modification on January 20, 2017, to remedy a failed lagoon with recirculating media filter instead of a Free Water Surface (FWS) constructed wetlands treatment system designed in accordance with the Tennessee State *Sewerage Design Criteria* and the *Water Environment Federation, Manual of Practice No. FD-16, Natural Systems for Wastewater Treatment* (Third Edition). All monitoring requirement for constructed wetlands treatment from previous permit are deleted in this modification.

Attachment 1
STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES-LAND BASED SYSTEMS UNIT
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

MEMORANDUM

TO: Hari Akunuri, DWR-CO

FROM: Allen Rather, DWR- Land Based Systems Unit

DATE: 10/20/2015

SUBJECT: LCSS/SFDS (Class V Injection) Approval
Cedar Hill Treatment Facility
Cedar Hill, Robertson County, Tennessee
UIC File ROB 0000028 SOP-05039

The Division of Water Resources has reviewed the submittal of an Application for Authorization to Operate a Class V Underground Injection Well (Large Capacity Septic System/Subsurface Fluid Disposal System) utilizing drip dispersal for the waste water at the Cedar Hill Treatment Facility located at Cedar Hill, Robertson County, Tennessee. This Division approves the application dated 09/03/2015.

If at any time the Division learns that a ground water discharge system may be in violation of The Tennessee Water Quality Control Act, the Division shall:

- a. require the injector to apply for an individual permit;
- b. order the injector to take such actions including, where required, closure of the injection well as may be necessary to prevent the violation; or
- c. take enforcement action.

All groundwater discharge activities must operate in such a manner that they do not present a hazard to groundwater.

In accordance with Underground Injection Control (UIC) Rule 0400-45-06-.14 (3) "The owner of a Class V well shall be responsible for notifying the Department of change in ownership." This notification must be made to this Division within thirty (30) days of the change in ownership.

Also note that according to Underground Injection Control (UIC) Rule 0400-45-6-.14 (8)(d) "Upon completion of the well, the owner or operator must certify to the Department that the well has been completed in accordance with the approved construction plan, and must submit any other additional information required". The certification must be submitted to the UIC Program within thirty (30) days upon the completion/closure of the Class V well.

This Division will require a minimum of seven (7) working days advance notice before the construction on the drip system is to begin to allow for a witness from this Division to be present.

No drip emitters are to discharge directly into an open throat or crevice in the subsurface. All drip lines are to be installed on contour.

Our concurrence with your approach does not imply that this procedure is exempt from future changes or restrictions in the Underground Injection Control (UIC) Regulations, or any additional requirements set forth by the Division in order to protect the groundwater of Tennessee.

A copy of this authorization must be kept on site until the development has been completed and must be made available to inspection personnel.

Should you have any questions or comments please feel free to contact me at (615) 532-5819 or allen.rather@tn.gov.

c: file

Project Pricing Worksheet

Project Name	Smoky Village
Location	Sevier County

Engr. / Project Management \$14,167.34

Previous Completed Construction 1869.32

Construction

Labor 46135.00

Material 28296.40

Equipment 34510.00

Total Direct 108941.40

Contingencies (5%) 5447.07

Overhead (15%) 16341.21

Profit 12528.26

Total Construction \$143,257.94

Total Project Cost \$159,294.60

EXHIBIT B

Price
Estimate(1/5/2016)

Maple Green Constructed Wetland estimate				
Item	QTY	Units	Unit Price	Total
8" pipe SDR 21	500	FT	8	4,000.00
8" Pipe SDR 26	1200	FT	8	9,600.00
8" Tee	17	EA	105	1,785.00
8" 90	21	EA	80	1,680.00
8"cap	21	EA	6	126.00
Liner 30Mil	60000	SQFT	0.4	24,000.00
#357 or #4 stone, washed	5	10yd loads	350	1,750.00
57 stone, washed	5	10yd loads	350	1,750.00
Geo Fabric	60000	SQFT	0.15	9,000.00
Plants				
70% cover	40000	SQFT	1.25	50,000.00
excavator	2	Months	8000	16,000.00
1500 gallon pump tank duplex pumps	2	EA	3000	6,000.00
Labor	960	Hours	75	72,000.00
Fence	800	FT	17	13,600.00
Instrumentation	1		10000	10,000.00
Aeration				16,600.00
Soil Mapping				0.00
Property acquisition				0.00
easements				0.00
Project Management				29,736.38
Construction Total				267,627.38
Bond	2%			5,352.55
Construction	10%			26,762.74

Price
Estimate(1/5/2016)

Cedar Hill Constructed Wetland estimate				
Item	QTY	Units	Unit Price	Total
8" pipe SDR 21		FT	8	0
8" Pipe SDR 26	1250	FT	8	10000
8" Tee	17	EA	105	1785
8" 90	21	EA	80	1680
8"cap	21	EA	6	126
Liner 30Mil	30000	SQFT	0.4	12000
#357 or #4 stone, washed	10	10yd loads	350	3500
Geo Fabric	30000	SQFT	0.15	4500
Plants				
70% cover	20000	SQFT	1.25	25000
excavator	2	Months	8000	16000
1500 gallon pump tank duplex pumps	2	EA	3000	6000
Labor	800	Hours	75	60000
fence		FT	17	0
Instrumentation	1		10000	10000
Power	30000			30000
Aeration				8300
Property acquisition				0
easements				0
Drip Field	9000	FT	3.5	0
field lines	1200	FT	15	0
project management				23611.375
Construction Total				212502.375
Bond				4250.0475
Construction	10%			21250.2375

Contingency					Contingency				
Engineering	240	Hours	100	24,000.00	Engineering	240	Hours	100	24000
CAI	160	Hours	100	16,000.00	CAI	160	Hours	100	16000
Project total				339,742.66	Project total				278002.66

See Attached Quote
for Seismic Refraction
and on site core
drilling.

\$24,720.00

Total

\$364,462.66